

Evaluation of Algorithm Performance - 2007/08 Gas Year

Introduction

In accordance with customary practice, three sources of information have been examined in this review:

- i) Daily values of scaling factor (SF) and weather correction factor (WCF) (this was presented separately at the DESC meeting of 11th November 2008)
- ii) Reconciliation variance (RV) data for each EUC
- iii) Daily consumption data collected from the NDM sample

This note presents the results of the review in respect of RV data and NDM sample derived daily consumption data, with brief explanatory notes.

1.0 Scaling Factor (SF) and Weather Correction Factor (WCF)

This material was discussed at the meeting of DESC on 11th November 2008.

It incorporated SF and WCF-EWCF graphs and tables, for the two previous gas years, 2006/07 and 2007/08. In addition figures for the mean square deviation of SF from 1 were provided.

2.0 Reconciliation Variance (RV) analysis

2.1 Overview

The reconciliation variance (RV) data presented is based on the complete set of reconciliation variances that have been calculated for meter points in "B" EUCs. RVs for WAR band EUCs have not been included in the analysis. The object of this analysis is to try to assess the EUC profiles applied over the gas year from available RV data.

Therefore, prior to analysis the data has been screened to eliminate RVs which are greater than 50% of either the actual or allocated consumption (i.e. both: allocated > 2 x actual and allocated < 0.5 x actual). Additional checks have also been made to ensure removal of inappropriate or erroneous data (e.g. actual consumptions should be positive, very low AQs are filtered out).

Over gas year 2007/08, this screening process reduced the available data set by an extent ranging from 18.5% in December 2007 to 48% at the end of the gas year in September 2008. The "raw" input data to this analysis is all RV data relating to the period in question (i.e. both standard and suppressed reconciliation).

The remaining validated RV data is then used to establish, for each EUC, an average profile of actual and allocated demand. On this basis the profiles have been categorised as "peaky", "flat" or "ok".

The generation of this average profile for an EUC involves taking each meter in turn and apportioning the total actual and allocated energy values evenly to all dates in the meter's reconciliation period. The ensuing aggregate values for each date are then divided by the number of contributing meters, and subsequently graphed against time.

The objective with this approach is not to establish a realistic profile resembling an ALP (annual load profile), but rather to highlight any seasonal patterns in the average reconciliation variance.

The RV profile that is thus derived for an EUC can be categorised according to two dimensions, its annual level and its peakiness. The categorisation procedure is undertaken through the calculation of full year, winter and summer average errors expressed as a percentage of the full year average actual figure. The difference between the winter and summer errors is taken to reflect the peakiness of the profile, whereas the size of the full year error indicates whether the average AQ for the meters contributing to each EUC sample is too high or too low. The winter/summer error differences have been classified as acceptable if the absolute value is less than 5% (which is approximately equivalent to a one percentage point change in load factor).

It must be noted that, since gas year 2007/08 ended only a few months previously, RV data relating to meter points that are not monthly read has not fully flowed through to the analysis. Therefore, when this study is

revised in spring 2009, the information relating to the lower consumption bands in the analysis will be further refined.

Graphs illustrating the profiles established from the RV data, for NW, WS, SO, EM, SW, NT and NO LDZs in consumption bands 02, 03, 04, 05, 06, 07 and 08 respectively, are attached as Figures 2.1, 2.3, 2.5, 2.7, 2.9, 2.11 and 2.13. Prior to its being classified as too "peaky" etc., the deemed profile is scaled so that over the year as a whole the level of demand matches the actual level. Figures 2.2, 2.4, 2.6, 2.8, 2.10, 2.12 and 2.14 show each of the revised profiles for the EUC and consumption band combinations stated above. Note again that the uniform apportionment of each reconciliation variance quantity across all applicable days together with fluctuations in the numbers of contributing meters during the period mean that these RV profiles are not comparable to ALP profiles and therefore the various apparent "spikes" in these figures must be seen in this context.

2.2 Analysis

Table 2.1 shows the classification of the EUC profiles as regards their peakiness. Tables 2.2 and 2.3 show the percentage errors [(actual-allocated)/actual as a %] over the winter and summer periods respectively, on which the classification is based.

Where the average number of contributing meters across the full year or across the winter or summer six month periods was 2 or less no attempt has been made to derive a classification. Thus, no assessment has been possible for WN LDZ in consumption band 07B, for LDZs SC, NE, WN, WS and EA in consumption band 08B and for LDZs NO, NW, NE, EM, WN, WS, EA, NT, SE, SO and SW in consumption band 09B.

Table 2.1 suggests that during 2007/08:

- It should be noted that not all reconciliation variance data applicable to the period under review (gas year 2007/08) has yet been processed (particularly in those consumption bands with non-monthly read meters). Subject to this caveat, Table 2.1 suggests that during 2007/08 for consumption bands 02B and 03B the profiles have in most cases been too-peaky at the 5% level. In consumption band 02B the profile for EM LDZ has been good (i.e. within the $\pm 5\%$ level) and in consumption bands 02B and 03B the profiles for WN LDZ have been too peaky at the 10% level. Both these bands are the two most likely to contain non-monthly read meter points. Therefore, when this analysis is revised in spring 2009, the information relating to these lower consumption bands will be further refined.
- The profiles for consumption band 04B appear in most cases to be either good (in 8 LDZs) or too peaky at the 5% level (in 4 LDZs: SC, NO, EM and SE). In one LDZ (WN, which has less than 1% of the number of NDM supply points making up consumption band 04B nationally) the profile appears to be too peaky at the 10% level.
- The profiles for consumption band 05B appear in most cases to be either good (in 8 LDZs) or too peaky at the 5% level (in 5 LDZs: NW, NE, WN, WS and EA).
- The profiles for consumption bands 06B are also mostly good (9 of 13 LDZs) but there is a single occurrence of profile that is too peaky at the 5% level (WS LDZ) and three occurrences of profiles that are too flat at the 5% level (NE, EM and SE LDZs).
- The profiles for consumption bands 07B are a mixture of those that are good (4 LDZs: WM, WS, NT and SW), too peaky at either the 5% level (3 LDZs: SC, NW and EM) or the 10% level (1 LDZ: EA) and too flat at either the 5% level (2 LDZs: NE and SO) or the 10% level (2 LDZs: NO and SE). An assessment of the profile could not be made for WN LDZ.
- The profiles for consumption bands 08B are also a mixture, comprised of cases that are good (1 LDZ: NW), too peaky at the 5% level (2 LDZs: WM and SO) and too flat at either the 5% level (2 LDZs: NO and SE) or the 10% level (3 LDZs: EM, NT and SW). An assessment of the profile could not be made for 5 LDZs (SC, NE, WN, WS and EA).
- Similarly, for consumption band 09B, assessment was only possible in 2 LDZs (i.e. SC, too peaky at the 10% level and WM, too peaky at the 5% level).
- Considering individual LDZs, there is a preponderance of cases with profiles that are too peaky at the 5% level or good. Overall there are no occurrences of profiles that are too flat in consumption bands 02B to 05B. Instances of profiles that are too flat are not common in most bands (band 08B excepted).

The winter and summer period fractional errors are shown in Tables 2.2 and 2.3. The profile assessments (e.g. the 5% and 10% levels) are based on the sum of the differences in the winter and summer errors - e.g. a winter error of -3% and a summer error of +3% for consumption band 02B in SC LDZ means an overall

difference of 6% and the profile is too peaky at the 5% assessment level. Note here that the error is defined as “actual – allocated”. So, a negative winter % error indicates a profile that is too peaky and a positive winter % error indicates a profile that is too flat (e.g. EM LDZ, consumption band 08B).

Table 2.4 shows the extent of the scaling that was applied in this RV analysis to the deemed demands in each EUC in order to match the annual demands. Most of the scaling applied is seen to be an uplift (>1). Interpreted simplistically, this might indicate a deficit in the level of AQ in these EUCs. In direct contrast, the WCF and SF strand of performance evaluation assessment which was presented to DESC in November 2008 suggested that aggregate NDM AQs overall were too high in gas year 2007/08.

However, this RV analysis does not actually reflect the overall population for a number of reasons. Most significantly, there is no reconciliation of consumption band 01B (which makes up more than 73% of overall NDM load in AQ terms). Moreover, RV data validation results in a significant proportion of the raw data having to be discarded (thus the ensuing results for annual scaling do not necessarily represent the overall population). In addition, the results cover the recently concluded gas year (2007/08) pertaining to which all RV data in all consumption bands has not yet become available.

If the assumption is made that the RV results indicate correctly that “non-domestic NDM EUC AQs were too low in 2007/08, since it also appears clear from the WCF and SF analysis that overall aggregate NDM AQs in gas year 2007/08 were too high, that would suggest that “domestic” (consumption band 01B) AQs were notably too high. The more plausible viewpoint is to discount the annual scaling from the RV analysis as being unrepresentative for the reasons stated.

3.0 Analysis of NDM sample daily consumption data

3.1 Overview

The performance of the algorithms has been evaluated on three bases:

- i) As used - 2007/08 ALPs and DAFs, real system WCF and SF
- ii) Best estimate 07 - 2007/08 ALPs and DAFs, EWCF, SF = 1
- iii) Best estimate 08 - as (ii) above but with 2008/09 ALPs and DAFs (equivalent)

Tables showing the error (“actual-allocated”) expressed as a percentage of full year demand, for the whole year and for winter and summer separately, for each of the three bases, are attached as Tables 3.1 to 3.9. The layout of these tables and the basis of the calculations are similar to that published on previous occasions (e.g. the June 2008 NDM report).

It is worth commenting at the outset on the results for band 09B. The results for band 09B are unreliable and are disregarded in this assessment. Only supply points that are NDM and have passed data validation are used to assess this band. Consequently this band is represented by just 7 supply points distributed in only 5 LDZs. Three LDZs (NW, NE and WM) have only a single supply point and two LDZs (EM and WS) have just two supply points. The overall winter and summer errors for band 09B are very high. This is principally due to the single supply points in NW and NE LDZs. The first of these showed markedly reduced consumptions during July and August (including a period of no consumption) and the second supply point had very low consumptions from 1st May onwards. Nevertheless, both supply points did have AQs comfortably within band 09B.

Figures 3.1, 3.2 and 3.3 are bar charts showing a simple summary of the overall picture given by these three sets of tables. The overall error and apparent winter/summer bias for EUCs in each consumption band is shown averaged across all LDZs.

The bar chart in Figure 3.1 shows that for the “as used” analysis the percentage errors for all consumption bands over the 12 month period as a whole, are positive and lie in a range of 0.6% to 4.1%. Full year, winter and summer errors are all positive for bands 01 to 05 (which make up ~94% of total NDM load). Positive winter and negative summer errors are shown in bands 06, 07 and 08.

3.2 Analysis

The positive errors over 12 months across all consumption bands indicate under allocation by the models. This under allocation in most consumption bands in the “as used” analysis is a clear indication of population AQs being too high. Moreover, since allocated consumption is a direct function of AQ, the extent of the AQ excess (in percentage terms) would broadly tend to be of the same order as that noted for this “as used”

analysis. Although not recorded in Table 3.1, the full year errors in the “as used” analysis, for each LDZ across all applicable consumption bands were also computed and they range from 1.5% to 5.4% for the individual LDZs (and 3.2% overall across all LDZs) suggesting an AQ excess of the same extent (except for WN LDZ where the error is -3.1%, indicating an AQ deficit; the previously reported WCF and SF analysis also indicated an AQ deficit in WN LDZ).

The “as used” analysis uses real (i.e. Gemini system) SFs that have taken population AQs into account (i.e. if population AQ was too high then this would have led to a decrease of the real SFs from the values that would have otherwise applied).

However, the AQs used in the analysis are not system AQs but are computed from sample data itself. These AQs based on the consumption data of the sample itself would be expected to be lower than the equivalent system AQs. Thus, the resultant “as used” allocations using the real SFs with sample derived AQs, end up being lower than they should be and this gives the positive errors shown in Figure 3.1.

The analysis of WCF and SF patterns over gas year 2007/08, presented at the DESC meeting on 11th November 2008, also indicated that population NDM AQs were too high during this period, in all LDZs, except WN and SO. The WCF and SF analysis suggested that this AQ excess during gas year 2007/08 was up to 2% for LDZs: SC, NW, NE and EM and in the range 3-6% for LDZs: NO, WM, WS, EA, NT, SE and SW.

The percentage changes in aggregate NDM AQs at the start of gas year 2008/09 as observed on the Gemini system indicated that a significant reduction in aggregate NDM AQ had taken place for gas year 2008/09. The reduction was 3.4% overall across all LDZs and the reductions ranged from 2.4% in SO LDZ to 5.0% in WN and WS LDZs. The reductions observed at the start of gas year 2008/09 in LDZs: SC, NW, NE, EM, SO and WN were generally greater than any AQ excess indicated for these LDZs from the assessment of the impact of WCF bias on SF values. The AQ reductions indicated on the Gemini system in LDZs: NO, WM, WS, EA, NT, SE and SW were broadly in line with the AQ excess indicated for these LDZs.

The observed AQ reductions on the Gemini system at the start of gas year 2008/09, and the AQ excess indicated from “as used” NDM sample analysis were broadly consistent across all LDZs in aggregate (3.4% overall NDM AQ reduction in Gemini -v- 3.2% AQ excess). For individual LDZs, the AQ excess indicated by the percentage errors from the “as used” NDM sample analysis ranged from 1.5% to 5.4% (and was 3.2% overall across all LDZs): SC, NE and SO LDZs were below 2%, NW, EM, WM, EA and NT LDZs were in the range 2-4% and NO, WS, SE and SW LDZs were above 4%. The AQ reductions on the Gemini system at the start of gas year 2008/09 were greater than these indicated AQ excesses in 7 LDZs and lower in 5 LDZs.

The analysis of WCF and SF patterns over gas year 2007/08, presented at the DESC meeting on 11th November 2008, also provided evidence of WCF bias (i.e. lower WCF) due to overstated aggregate NDM SNDs during gas year 2007/08 (note also that WCF bias was observed to a greater extent in 2007/08 than in 2006/07). In respect of the more weather sensitive consumption bands, for which the DAF*WCF term would have been more strongly depressed, the under allocation shown in the “as used” analysis may be believed to be also due to this WCF bias. However, the system SFs used in the “as used” analysis have already taken in to account the WCF bias, causing SFs to be greater than they would otherwise have been (and acting counter to the depressive effect on system SFs due to NDM AQs having been too high). Therefore, the observed under allocation in the “as used” analysis may be ascribed solely to NDM AQs having been too high.

The “best estimate” analysis is potentially more helpful in assessing the performance of the algorithms themselves, as opposed to the performance of the demand attribution process. For each “best estimate” analysis, a scaling factor of one is used and EWCF is applied instead of WCF. The EWCF is calculated directly from the models of aggregate NDM demand in the LDZ for the period in question, using the relevant aggregate NDM seasonal normal demands and weather sensitivities along with the actual CWV. Use of the EWCF avoids bias which might be introduced in the WCF by aggregate NDM SND error. WCF bias was higher in 2007/08 than it had been in 2006/07 due to the increased levels of aggregate NDM SND that were applied in 2007/08 (relative to 2006/07).

The “best estimate 07” analysis is based on the algorithms for 2007/08, while the “best estimate 08” analysis is based on algorithms derived for 2008/09 and applied with appropriate adjustment for the pattern of days of the week and holidays in 2007/08.

On the evidence of the bar chart in Figure 3.2 (“best estimate 07”), there was little overall error in the algorithms for any of the consumption bands over the whole of gas year 2007/08 (full year errors were positive and less than 0.2% for all bands). Overall consumption band winter period errors range from -1.2%

to +3.1% and overall consumption band summer period errors range from +0.7% to -4.9%. Actual summer demands are lower and hence percentage errors can be somewhat greater in the summer. The signs of the winter and summer period errors suggest that for bands 01, 05, 06, 07 and 08 the profiles in 2007/08 were a little too flat, while for bands 02, 03 and 04 the profiles were a little too peaky. There are (of course) exceptions to this broad generalisation in some individual LDZs (see Tables 3.5 and 3.6).

The bar chart in Figure 3.3 (“best estimate 08”) shows that the algorithms derived for 2008/09 would (if applied to gas year 2007/08) have resulted in a similar though somewhat mixed outcome for each overall consumption band considered. Whole year errors are very small overall for all the consumption bands, but for this “best estimate 08” case they are all negative (full year errors for all bands are better than -0.4%). Winter and summer period errors are slightly improved in bands 01, 02 and 08. However, the winter and summer period errors are worse for bands 03 and 07. The picture is mixed for the remaining bands: only the winter period error is better in bands 05 and 06 while only the summer period error is better in band 04.

The reconciliation variance analysis indicated profiles that were too peaky overall in bands 02 and 03 and profiles that were good in the majority of LDZs in bands 04, 05 and 06 (in each band: 8 or more instances). Bands 04 and 05 were just slightly too peaky overall (both well within the 5% level) and band 06 was very slightly too flat overall (again well within the 5% level). In band 07 the individual LDZ profiles were an equal mixture of good, too peaky and too flat (with no assessment possible for WN); overall band 07 was a little too peaky (but within the 5% level). A mixed picture also prevailed in band 08 with instances of profiles that were too flat being predominant; overall band 08 was a little too flat (and again within the 5% level). In broad terms a profile that is too peaky over allocates in the winter and correspondingly under allocates in the summer.

It must be borne in mind that the two analyses are based on different data sets, neither of which is necessarily representative of the population as a whole. The RV analysis cannot assess consumption band 01B and is based on a validated sub-set of available reconciliation data relating to gas year 2007/08. Moreover, not all RV data pertaining to the period has been received at the time of this analysis (i.e. RVs resulting from non-monthly meter reads have not all come in). On the other hand, the “best estimate” analyses are based on validated NDM sample data. Moreover, both analyses suffer from small numbers of contributing meter/supply points at the higher consumption bands.

A selection of monthly charts is also presented: Figures 3.4 to 3.11 are monthly bar charts comparing actual and allocated demands, across all LDZs for consumption bands 01 to 08 respectively. These show for each month, actual demand, and allocated demand on the “as used”, “best estimate 07” and “best estimate 08” bases.

In interpreting these monthly charts it is relevant to recall the weather conditions that prevailed during gas year 2007/08. Over the winter 6-month period, all months except March 2008 were slightly or clearly warmer than seasonal normal, with January 2008 being the second warmest January on record. However, the winter as a whole was less warm than the previous winter (2006/07, which had been the warmest on record). The months of March and April 2008 were colder than seasonal normal, but May 2008 was much warmer than average (the warmest May on record) and although June 2008 was the coldest since 2002, the period June to September 2008 was unexceptional, being broadly close to seasonal normal.

Consideration of these monthly bar charts focused on the actual consumption compared to the allocations arising from the “best estimate” analyses, which better reflect the performance of the profiles themselves.

The monthly chart for band 01, in Figure 3.4, indicated small winter under allocation with December 2007 being most marked in this respect and modest summer over allocation with no individual month standing out.

The monthly chart for band 02, in Figure 3.5, indicated small winter over allocation with no particularly significant months and modest summer under allocation with April 2008 being most marked in this respect.

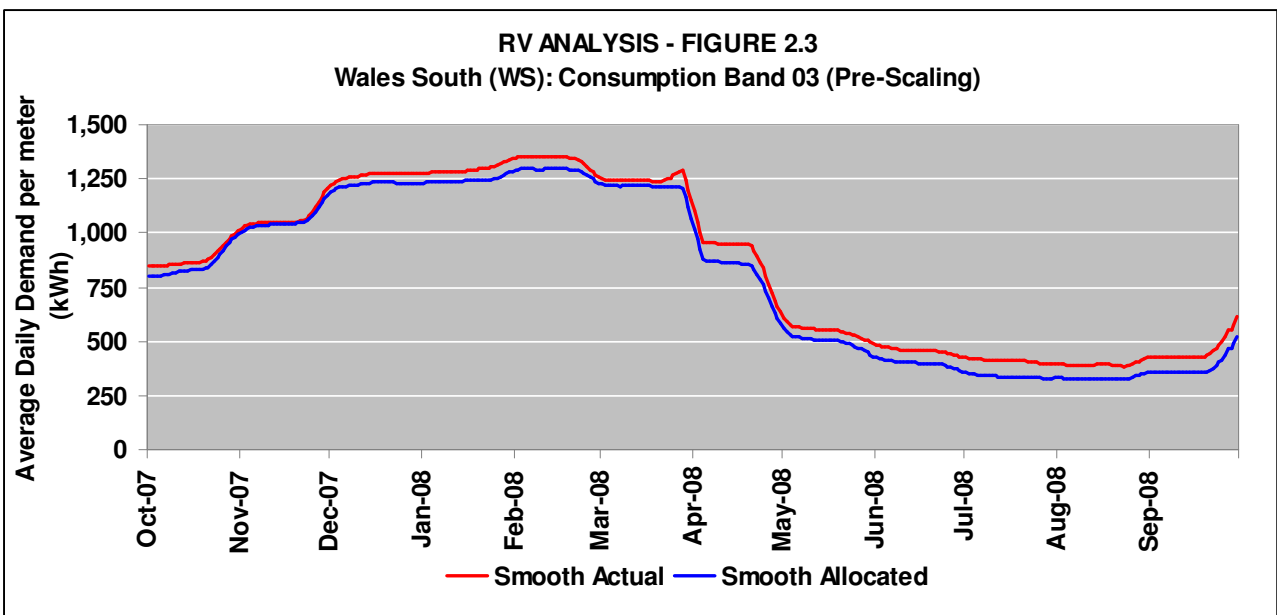
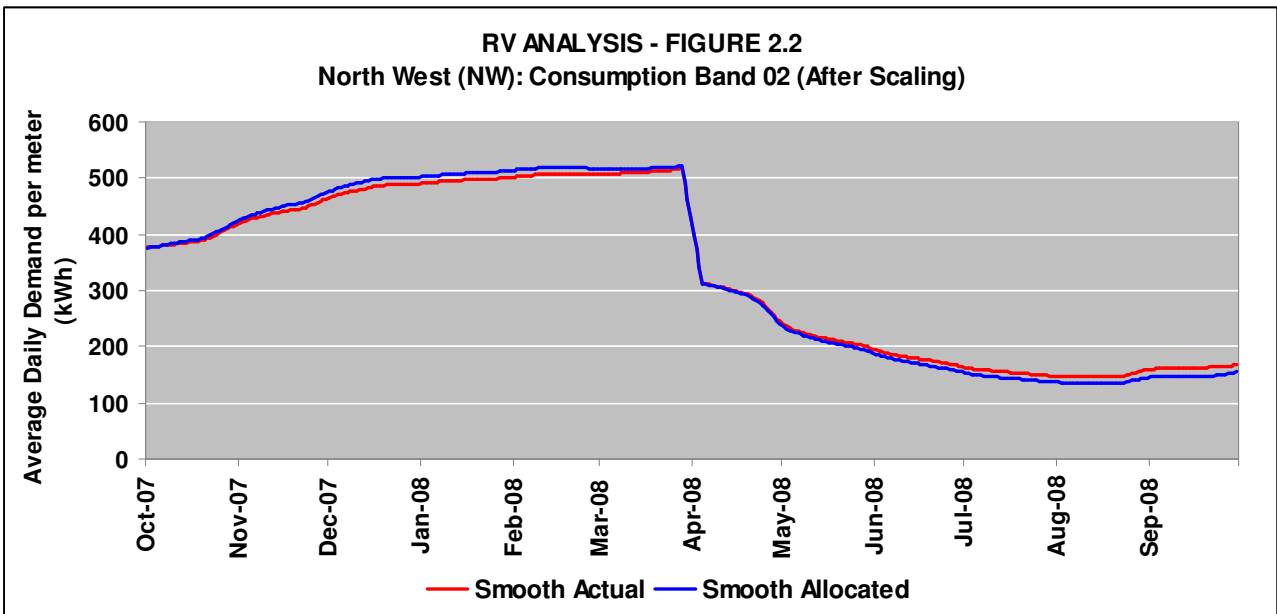
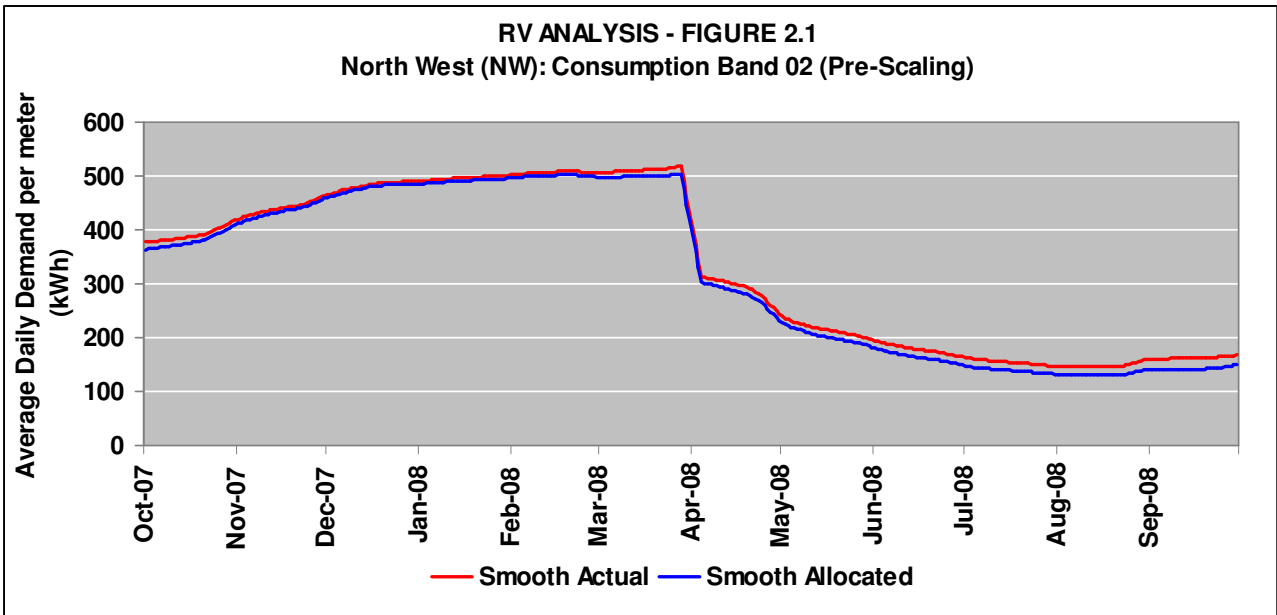
Figures 3.6 and 3.7 are the monthly charts for bands 03 and 04, both of which also showed small winter over allocation and small summer under allocation. February 2008 was notably over allocated for band 03 and April 2008 was significantly under allocated for both bands.

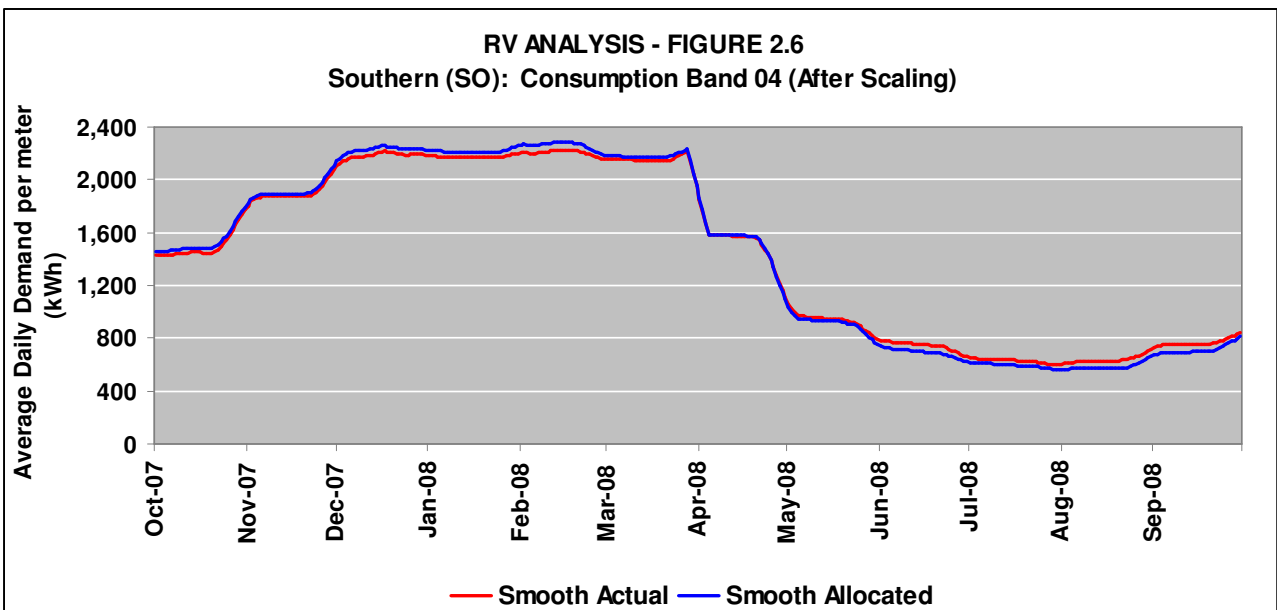
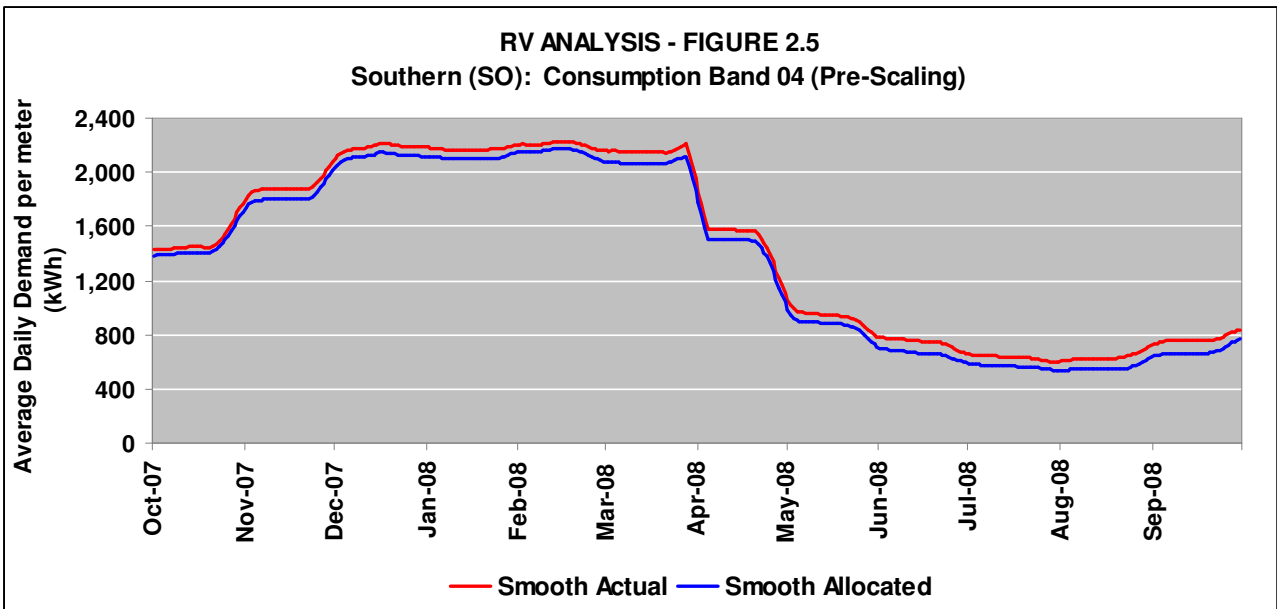
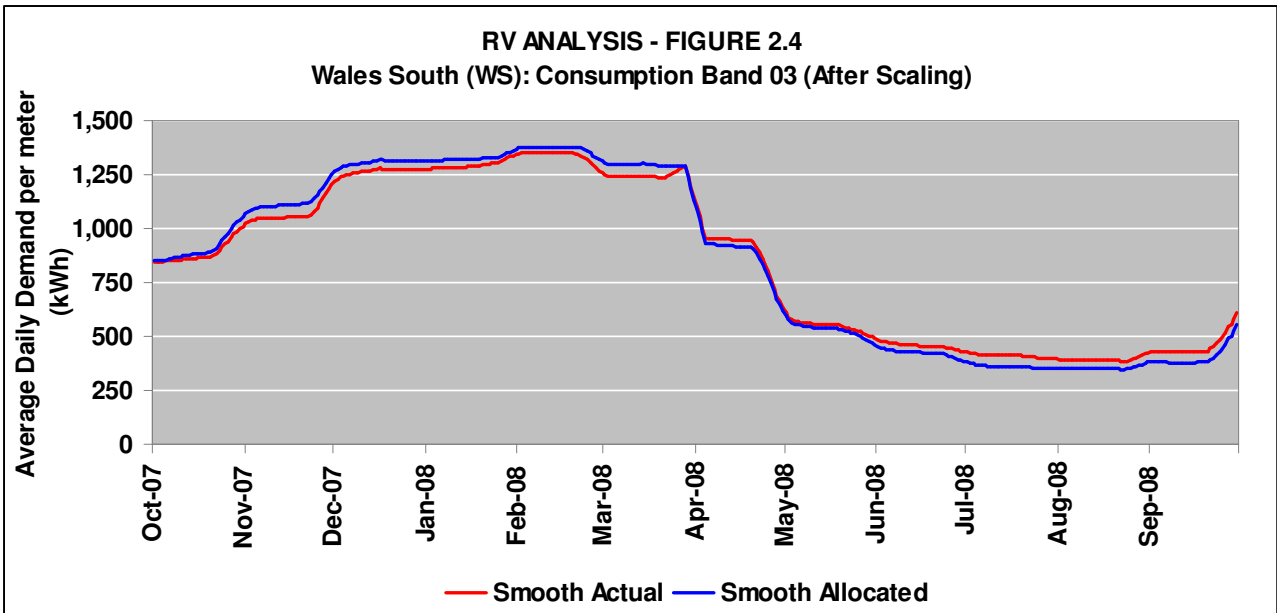
The monthly charts for bands 05 to 08 are in Figures 3.8 to 3.11. These bands all showed winter under allocation and summer over allocation. Marked under allocation occurred in January, March and April 2008 for bands 05, 06 and 07. In band 08, the months January to April 2008 all showed clear under allocation. Marked over allocation was observed for bands 06, 07 and 08 in September 2008.

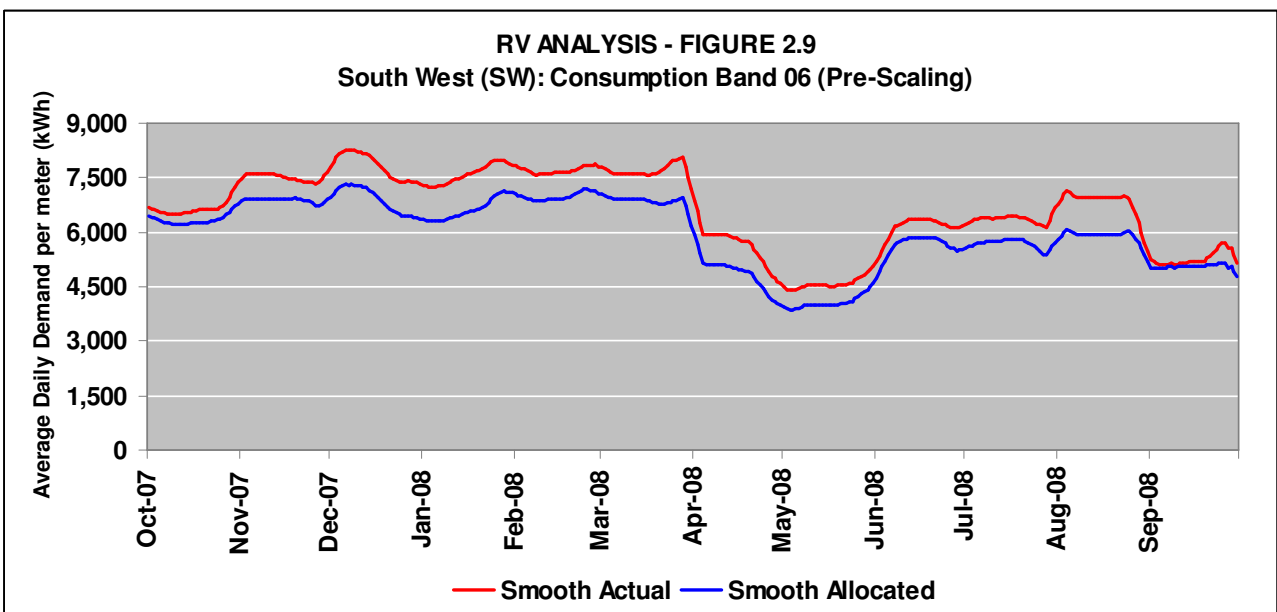
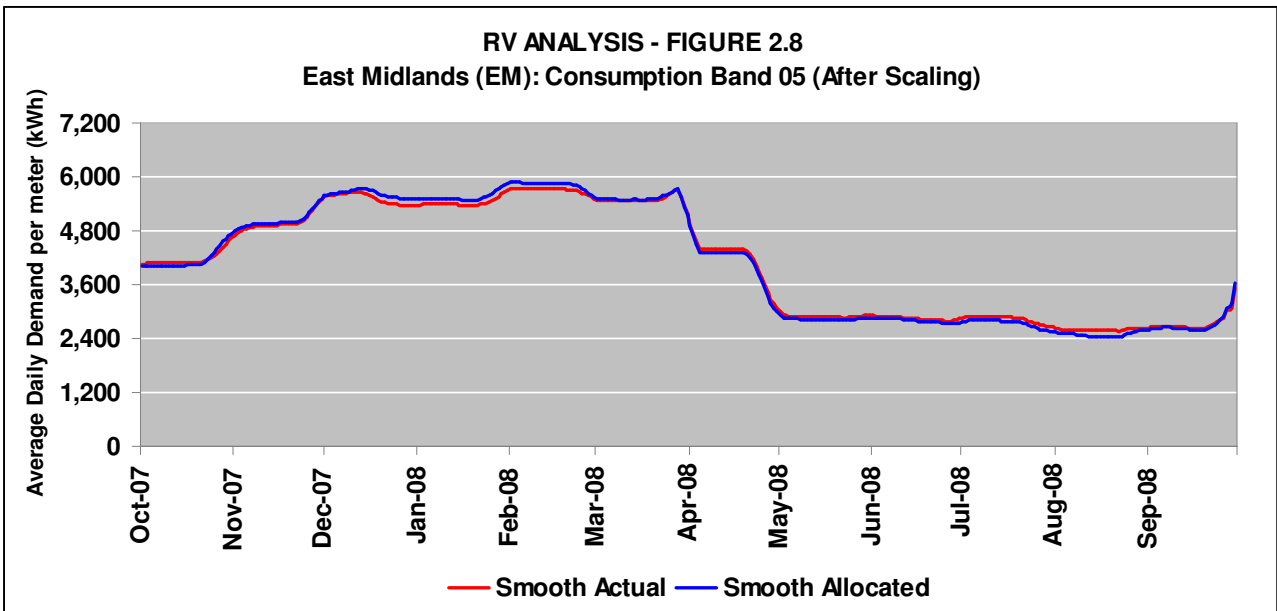
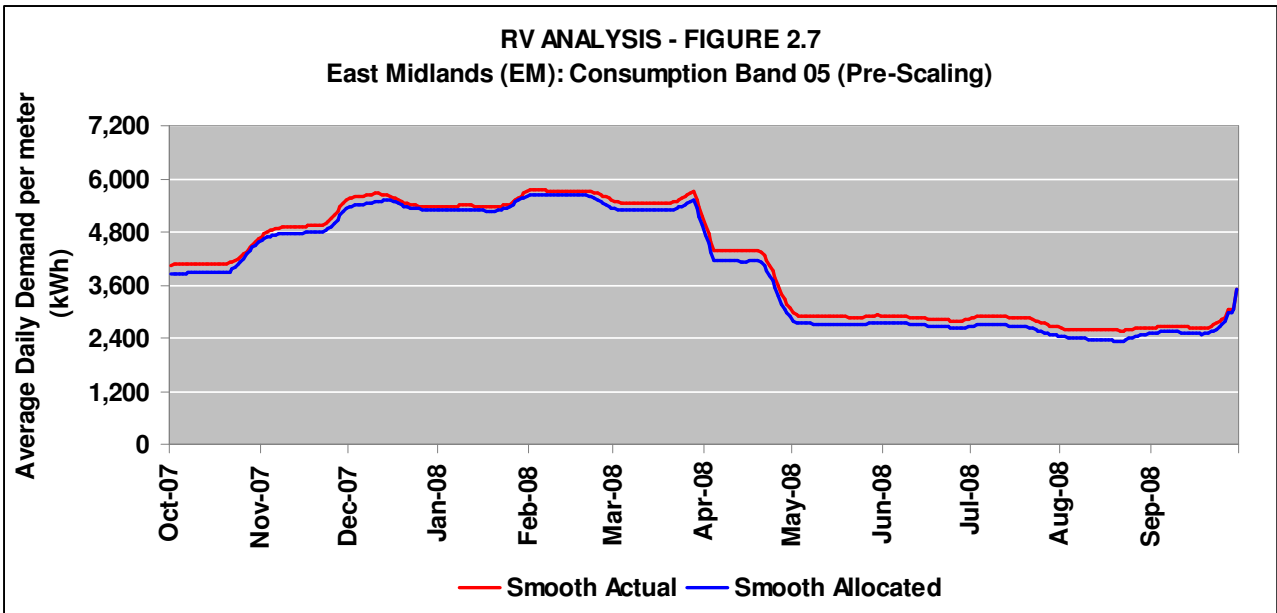
Additionally examples of monthly bar charts for individual EUCs, for some of the EUC bands (namely WM:E0702B, WS:E0703B, NO:E0704B, SW:E0705B, SC:E0706B, NE:E0707B and SO:E0708B) are shown in Figures 3.12 to 3.18 respectively. Many of these examples showed marked under allocation in the months of January and April 2008 in particular (and also December 2007 in SO:E0708B and March 2008 in both SW:E0705B and SC:E0706B). SO:E0708B (Figure 3.18) also showed marked over allocation in the months of June and July 2008. SC:E0706B (Figure 3.16) also showed notable over allocation in September 2008.

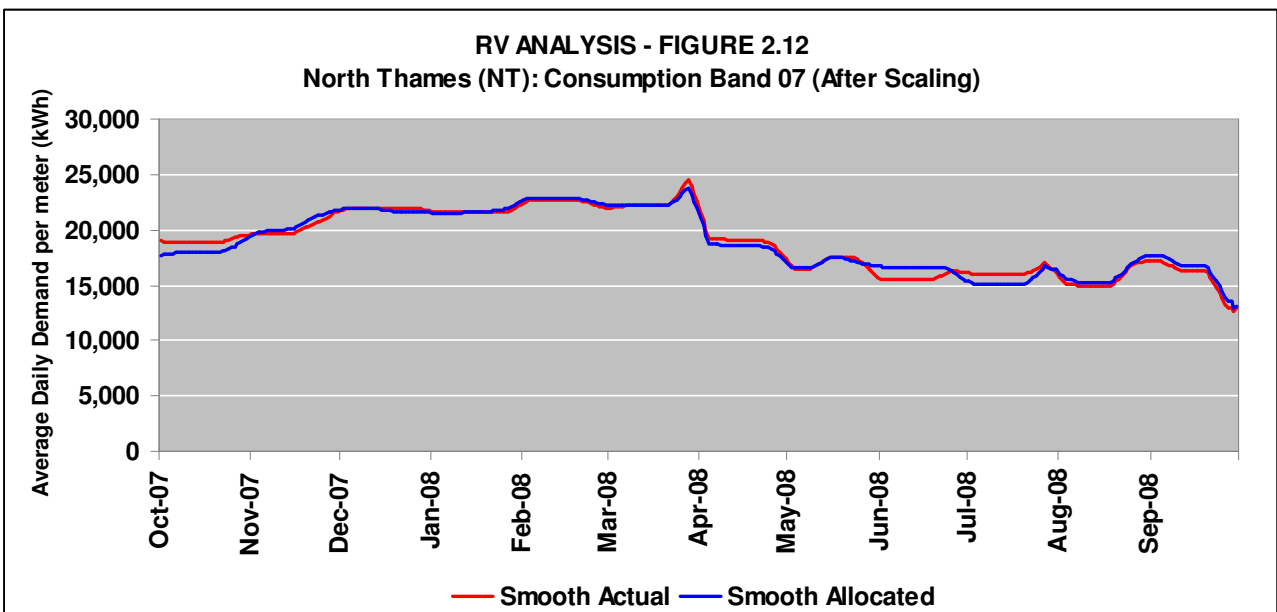
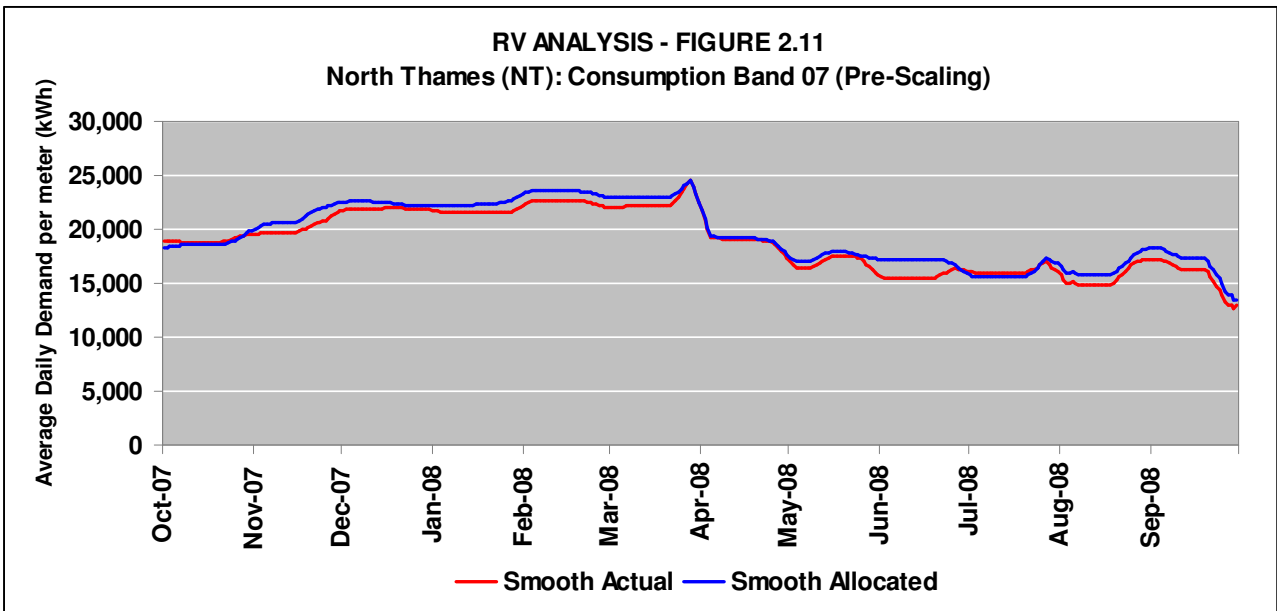
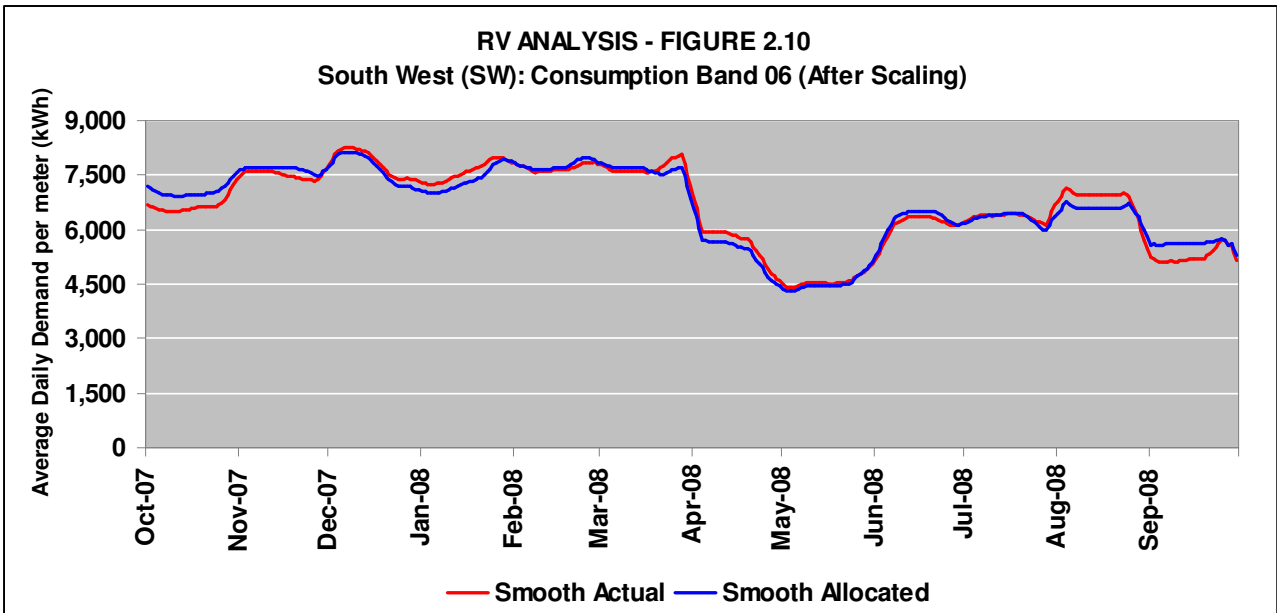
The very warm month of January 2008 (second warmest January month in industry records) saw depressed levels of aggregate NDM demand, but demand did not fall by as much as the very warm weather warranted, perhaps because space heating continued at set levels. Therefore, actual demand was greater than the allocations under the “best estimate” analyses (which used EWCF and effectively took in to account the effect of prevailing unseasonably warm weather).

The commonly observed under allocations in April 2008 were also due to atypically high aggregate NDM demand. However, in this case, the effect was mainly caused by warmer than seasonal normal conditions that prevailed broadly over the last 10 days of the month. This was preceded by a cold spell during broadly the first 20 days of April, which itself followed on from a cold spell in the second half of March. Aggregate NDM demand was high and generally corresponded to the prevailing cold weather conditions at first, but when the weather turned warmer demand levels remained high and led to an elevated level of actual aggregate NDM demand for the month, greater than the corresponding allocations under the “best estimate” analyses, which appropriately took in to account the effect of the initially cold and subsequently warmer weather.









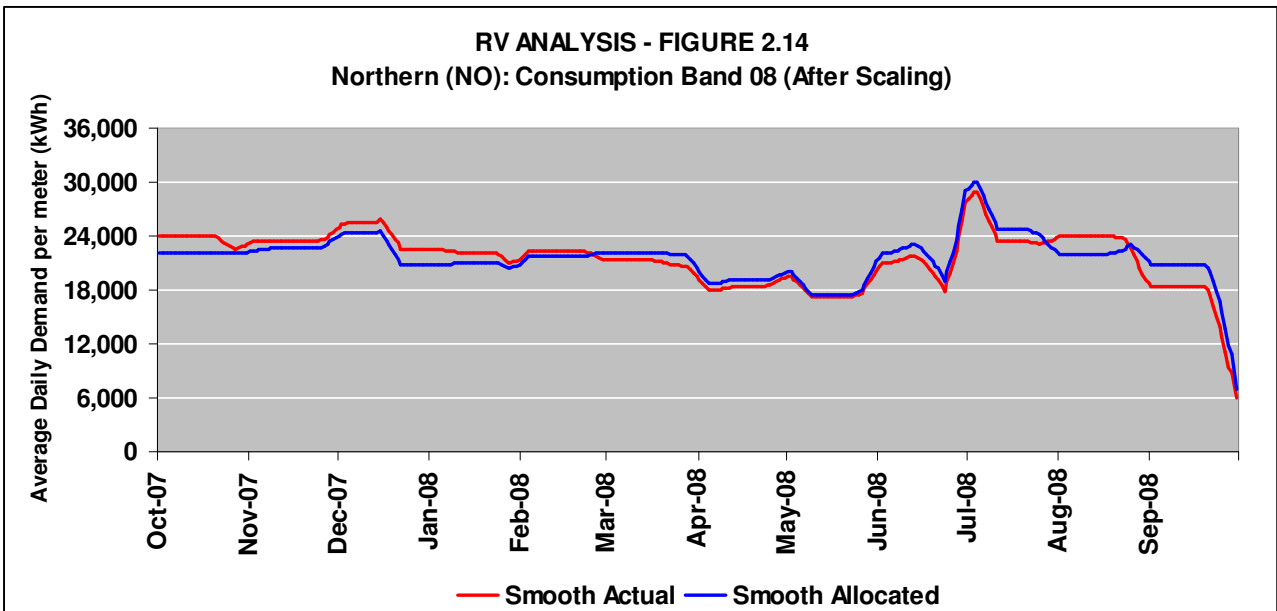
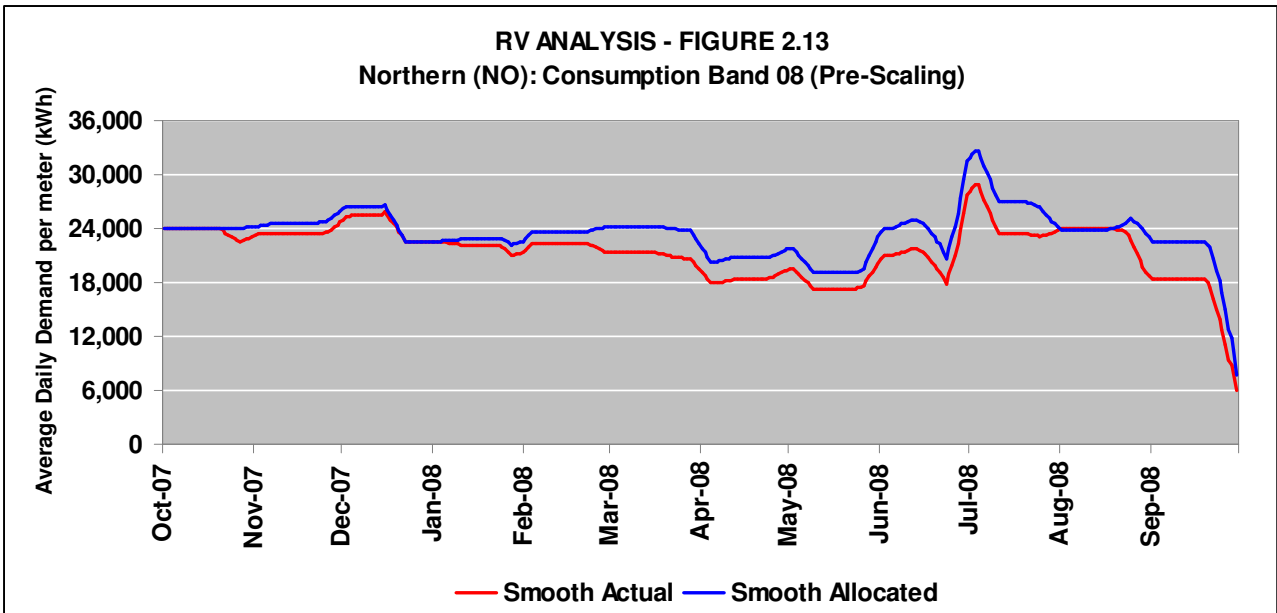


Table 2.1 – RV Categorisations: Profile (Gas Year 2007/08)

Based on average errors (after scaling) over the period as a percentage of average actual over the full year

EUC	Band	SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW
02	B	↑	↑	↑	↑	~	↑	↑	↑	↑	↑	↑	↑	↑
03	B	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
04	B	↑	↑	~	~	↑	~	↑	~	~	~	↑	~	~
05	B	~	~	↑	↑	~	~	↑	↑	↑	~	~	~	~
06	B	~	~	~	↓	↓	~	~	↑	~	~	↓	~	~
07	B	↑	↓	↑	↓	↑	~		~	↑	~	↓	↓	~
08	B		↓	~		↓	↑				↓	↓	↑	↓
09	B	↑					↑							

5% Level ↑ Too Peaky ↓ Too Flat 10% Level ↑ Too Peaky ↓ Too Flat

Table 2.2 – RV Categorisations: Winter (Gas Year 2007/08)

Based on average errors (after scaling) over the period as a percentage of average actual over the full year

EUC	Band	SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW
02	B	-0.03	-0.03	-0.03	-0.04	-0.02	-0.03	-0.06	-0.03	-0.03	-0.03	-0.03	-0.03	-0.04
03	B	-0.04	-0.03	-0.04	-0.05	-0.03	-0.04	-0.08	-0.04	-0.04	-0.03	-0.04	-0.05	-0.05
04	B	-0.03	-0.03	-0.02	-0.01	-0.03	-0.02	-0.06	-0.01	-0.02	-0.02	-0.03	-0.02	-0.02
05	B	-0.01	-0.02	-0.03	-0.03	-0.02	-0.02	-0.03	-0.03	-0.03	-0.02	-0.02	0.01	0.02
06	B	-0.02	-0.02	-0.01	0.03	0.03	0.00	-0.01	-0.03	0.00	0.00	0.03	0.02	0.00
07	B	-0.05	0.06	-0.04	0.03	-0.05	0.02		0.02	-0.08	0.00	0.09	0.05	-0.01
08	B		0.03	-0.02		0.07	-0.03				0.21	0.05	-0.04	0.09
09	B	-0.08					-0.03							

Table 2.3 – RV Categorisations: Summer (Gas Year 2007/08)

Statistics are average errors (after scaling) over the period as a fraction of average actual over the full year

EUC	Band	SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW
02	B	0.03	0.03	0.03	0.04	0.02	0.03	0.06	0.03	0.03	0.03	0.03	0.03	0.04
03	B	0.04	0.03	0.04	0.05	0.03	0.04	0.08	0.04	0.04	0.03	0.04	0.05	0.05
04	B	0.03	0.03	0.02	0.01	0.03	0.02	0.06	0.01	0.02	0.02	0.03	0.02	0.02
05	B	0.01	0.02	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.02	0.02	-0.01	-0.02
06	B	0.02	0.02	0.01	-0.03	-0.03	0.00	0.01	0.03	0.00	0.00	-0.03	-0.02	0.00
07	B	0.05	-0.06	0.04	-0.03	0.05	-0.02		-0.02	0.08	0.00	-0.09	-0.05	0.01
08	B		-0.03	0.02		-0.07	0.03				-0.21	-0.05	0.04	-0.09
09	B	0.08					0.03							

Table 2.4 – RV Categorisations: Annual Scaling (Gas Year 2007/08)

Statistics are total actual over the full year divided by the total allocated over the full year

EUC	Band	SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW
02	B	1.02	1.03	1.04	1.01	1.03	1.03	0.98	1.03	1.03	1.03	1.03	1.02	1.05
03	B	1.04	1.04	1.05	1.03	1.04	1.04	1.00	1.06	1.06	1.04	1.06	1.04	1.05
04	B	1.03	1.06	1.06	1.04	1.05	1.05	1.03	1.09	1.05	1.04	1.07	1.05	1.07
05	B	1.02	1.06	1.06	1.01	1.04	1.06	1.01	1.07	1.06	1.05	1.06	1.04	1.05
06	B	1.02	1.06	1.03	1.02	1.07	1.00	1.00	1.02	1.06	1.04	1.06	1.05	1.11
07	B	1.05	1.05	1.04	0.94	1.06	1.05		0.89	1.07	0.97	1.06	1.03	1.09
08	B		0.92	0.99		0.94	1.01				0.74	0.99	0.95	0.98
09	B	1.07					0.94							

Table 3.1 – Oct 07 to Sep 08: Actual WCF and SF, ALPs and DAFs ‘As Used’

Analysis of daily percentage error: Statistic is total errors as percentage of full period

EUC	SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	ALL
01B	2.04%	5.01%	3.24%	2.34%	3.56%	4.48%	-	5.92%	4.17%	3.66%	5.23%	2.19%	5.80%	3.97%
Num S.pts	243	232	229	261	239	247	-	252	256	227	236	245	248	2915
02B	1.87%	5.42%	3.55%	4.00%	4.11%	4.65%	-1.33%	6.35%	4.40%	2.64%	4.59%	1.93%	6.18%	4.07%
Num S.pts	76	102	120	91	107	95	5	76	110	135	109	104	104	1234
03B	1.80%	4.49%	3.21%	2.92%	3.69%	4.69%	-2.18%	5.63%	3.59%	2.88%	4.66%	1.95%	5.81%	3.62%
Num S.pts	94	73	127	83	123	80	14	58	117	146	153	81	79	1228
04B	1.47%	4.07%	3.04%	2.04%	3.47%	4.24%	-2.26%	5.69%	3.43%	2.54%	4.26%	1.88%	4.55%	3.21%
Num S.pts	298	248	348	249	342	271	42	144	304	366	386	264	218	3480
05B	1.21%	3.60%	2.35%	1.30%	2.54%	3.68%	-3.52%	4.14%	3.14%	1.85%	3.76%	1.79%	3.54%	2.52%
Num S.pts	258	172	333	188	232	303	42	79	172	273	222	208	154	2636
06B	0.76%	2.49%	1.58%	-0.13%	1.86%	2.57%	-4.91%	2.76%	1.87%	1.28%	2.89%	1.69%	2.43%	1.70%
Num S.pts	76	70	115	78	109	123	12	42	80	86	51	59	65	966
07B	0.26%	1.44%	1.28%	-1.18%	1.32%	2.07%	-5.47%	3.03%	1.02%	0.44%	2.48%	1.53%	2.54%	1.12%
Num S.pts	21	20	33	39	52	46	4	13	24	16	5	24	28	325
08B	-0.16%	0.63%	0.60%	-1.99%	0.84%	1.59%	-6.79%	1.97%	0.21%	-0.29%	1.89%	1.39%	1.27%	0.60%
Num S.pts	5	13	24	15	30	33	2	8	15	8	5	5	12	175
09B	-	-	0.50%	-2.33%	0.65%	1.40%	-	1.09%	-	-	-	-	-	0.44%
Num S.pts	-	-	1	1	2	1	-	2	-	-	-	-	-	7

Table 3.2 – Oct 07 to Mar 08: Actual WCF and SF, ALPs and DAFs ‘As Used’

Analysis of daily percentage error: Statistic is total errors as percentage of full period

EUC	SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	ALL
01B	1.81%	5.31%	2.90%	2.32%	3.30%	4.76%	-	6.51%	4.27%	4.24%	5.28%	2.11%	5.22%	4.00%
Num S.pts	243	232	229	261	239	247	-	252	256	227	236	245	248	2915
02B	-1.23%	1.79%	1.26%	1.05%	0.26%	1.91%	-13.60%	6.40%	3.17%	3.42%	0.78%	-0.13%	3.25%	1.77%
Num S.pts	76	102	120	91	107	95	5	76	110	135	109	104	104	1234

03B	-0.22%	2.80%	2.66%	0.61%	1.13%	0.91%	-6.48%	5.03%	1.35%	1.17%	2.19%	-1.48%	3.33%	1.46%
Num S.pts	94	73	127	83	123	80	14	58	117	146	153	81	79	1228
04B	1.58%	3.03%	1.64%	2.12%	1.64%	2.67%	-9.57%	4.79%	3.28%	1.10%	1.86%	0.49%	5.32%	2.10%
Num S.pts	298	248	348	249	342	271	42	144	304	366	386	264	218	3480
05B	0.60%	3.25%	2.93%	2.91%	2.82%	2.18%	-4.88%	4.76%	0.68%	2.13%	3.21%	0.05%	4.47%	2.21%
Num S.pts	258	172	333	188	232	303	42	79	172	273	222	208	154	2636
06B	1.39%	3.98%	3.72%	2.49%	3.11%	4.44%	-3.23%	2.58%	5.79%	2.24%	0.49%	1.10%	5.76%	3.19%
Num S.pts	76	70	115	78	109	123	12	42	80	86	51	59	65	966
07B	4.05%	7.19%	1.29%	-0.63%	-3.15%	5.83%	0.20%	2.03%	8.30%	-1.30%	11.73%	4.52%	5.45%	2.70%
Num S.pts	21	20	33	39	52	46	4	13	24	16	5	24	28	325
08B	11.48%	-0.89%	4.37%	-1.75%	-2.22%	7.88%	-17.74%	-0.29%	10.48%	5.60%	6.52%	3.42%	4.73%	3.36%
Num S.pts	5	13	24	15	30	33	2	8	15	8	5	5	12	175
09B	-	-	26.21%	38.54%	31.20%	2.36%	-	5.20%	-	-	-	-	-	19.99%
Num S.pts	-	-	1	1	2	1	-	2	-	-	-	-	-	7

Table 3.3 – Apr 08 to Sep 08: Actual WCF and SF, ALPs and DAFs ‘As Used’

Analysis of daily percentage error: Statistic is total errors as percentage of full period

EUC	SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	ALL
01B	2.61%	4.19%	4.19%	2.40%	4.34%	3.65%	-	4.32%	3.87%	2.02%	5.05%	2.43%	7.53%	3.89%
Num S.pts	243	232	229	261	239	247	-	252	256	227	236	245	248	2915
02B	8.80%	14.67%	9.38%	12.68%	14.43%	12.37%	23.35%	6.18%	7.77%	0.76%	13.60%	6.99%	14.14%	10.04%
Num S.pts	76	102	120	91	107	95	5	76	110	135	109	104	104	1234
03B	6.35%	8.58%	4.64%	9.02%	10.38%	14.75%	8.26%	7.15%	9.13%	6.85%	10.87%	10.53%	12.42%	9.05%
Num S.pts	94	73	127	83	123	80	14	58	117	146	153	81	79	1228
04B	1.23%	6.61%	6.23%	1.85%	8.03%	8.05%	12.33%	7.84%	3.81%	5.74%	9.89%	5.27%	2.74%	5.83%
Num S.pts	298	248	348	249	342	271	42	144	304	366	386	264	218	3480
05B	2.38%	4.30%	1.19%	-2.17%	2.00%	6.70%	-0.92%	2.96%	8.21%	1.27%	4.93%	5.51%	1.77%	3.15%
Num S.pts	258	172	333	188	232	303	42	79	172	273	222	208	154	2636
06B	-0.33%	-0.12%	-1.97%	-4.67%	-0.26%	-0.56%	-7.68%	3.04%	-5.88%	-0.40%	6.90%	2.85%	-3.15%	-0.91%
Num S.pts	76	70	115	78	109	123	12	42	80	86	51	59	65	966
07B	-5.63%	-8.12%	1.28%	-1.94%	7.09%	-3.76%	-14.96%	4.59%	-12.38%	2.86%	-15.86%	-3.90%	-2.42%	-1.88%
Num S.pts	21	20	33	39	52	46	4	13	24	16	5	24	28	325
08B	-19.97%	2.43%	-4.58%	-2.30%	4.47%	-7.57%	4.30%	4.81%	-17.39%	-8.97%	-4.98%	-1.47%	-3.57%	-3.94%
Num S.pts	5	13	24	15	30	33	2	8	15	8	5	5	12	175
09B	-	-	-72.02%	-389.31%	-117.16%	0.23%	-	-4.17%	-	-	-	-	-	-100.54%
Num S.pts	-	-	1	1	2	1	-	2	-	-	-	-	-	7

Table 3.4 – Oct 07 to Sep 08: EWCF, with SF=1: 2007/08 ALPs and DAFs ‘Best Estimate 07’

Analysis of daily percentage error: Statistic is total errors as percentage of full period

EUC	SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	ALL
01B	0.16%	0.15%	0.17%	0.16%	0.16%	0.18%	-	0.16%	0.19%	0.17%	0.17%	0.17%	0.27%	0.18%
Num S.pts	243	232	229	261	239	247	-	252	256	227	236	245	248	2915
02B	0.02%	-0.03%	0.08%	0.04%	0.03%	0.08%	0.08%	0.03%	0.03%	0.04%	0.03%	0.16%	0.06%	0.05%
Num S.pts	76	102	120	91	107	95	5	76	110	135	109	104	104	1234
03B	0.03%	-0.05%	0.14%	0.07%	0.09%	0.04%	0.14%	0.04%	0.14%	0.08%	0.10%	0.12%	0.24%	0.09%
Num S.pts	94	73	127	83	123	80	14	58	117	146	153	81	79	1228
04B	-0.01%	-0.12%	0.07%	0.06%	0.10%	0.13%	0.07%	0.04%	0.04%	0.09%	0.10%	0.16%	0.11%	0.07%
Num S.pts	298	248	348	249	342	271	42	144	304	366	386	264	218	3480
05B	-0.01%	-0.02%	0.04%	0.03%	0.01%	0.04%	0.04%	0.04%	0.05%	0.10%	0.08%	0.13%	0.03%	0.04%
Num S.pts	258	172	333	188	232	303	42	79	172	273	222	208	154	2636
06B	-0.03%	-0.05%	0.02%	0.02%	-0.02%	0.02%	0.02%	-0.01%	0.01%	0.07%	0.06%	0.12%	0.02%	0.02%
Num S.pts	76	70	115	78	109	123	12	42	80	86	51	59	65	966
07B	-0.02%	-0.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.04%	0.04%	0.04%	0.07%	0.02%	0.01%
Num S.pts	21	20	33	39	52	46	4	13	24	16	5	24	28	325
08B	-0.01%	-0.01%	0.00%	0.01%	0.01%	0.01%	0.00%	0.01%	0.02%	0.02%	0.02%	0.03%	0.01%	0.01%
Num S.pts	5	13	24	15	30	33	2	8	15	8	5	5	12	175
09B	-	-	0.01%	0.01%	0.01%	0.01%	-	0.01%	-	-	-	-	-	0.01%
Num S.pts	-	-	1	1	2	1	-	2	-	-	-	-	-	7

Table 3.5 – Oct 07 to Mar 08: EWCF, with SF=1: 2007/08 ALPs and DAFs ‘Best Estimate 07’

Analysis of daily percentage error: Statistic is total errors as percentage of full period

EUC	SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	ALL
01B	0.84%	1.74%	1.65%	1.09%	1.76%	1.85%	-	0.53%	1.82%	0.50%	1.37%	1.60%	0.48%	1.26%
Num S.pts	243	232	229	261	239	247	-	252	256	227	236	245	248	2915
02B	-2.24%	-2.18%	-0.14%	-1.29%	-1.67%	-1.27%	-7.62%	0.00%	0.60%	0.19%	-3.06%	-0.63%	-1.87%	-1.08%
Num S.pts	76	102	120	91	107	95	5	76	110	135	109	104	104	1234
03B	-1.17%	-0.82%	1.33%	-1.36%	-0.66%	-2.58%	-0.83%	-0.90%	-1.14%	-2.26%	-1.60%	-1.94%	-1.76%	-1.20%
Num S.pts	94	73	127	83	123	80	14	58	117	146	153	81	79	1228
04B	0.83%	-0.40%	0.47%	0.90%	-0.01%	-0.30%	-3.58%	-1.24%	1.05%	-2.09%	-1.71%	-0.01%	1.06%	-0.22%
Num S.pts	298	248	348	249	342	271	42	144	304	366	386	264	218	3480
05B	0.03%	0.31%	2.13%	2.30%	1.93%	-0.31%	1.16%	-0.08%	-1.49%	-0.56%	0.00%	-0.49%	0.62%	0.45%
Num S.pts	258	172	333	188	232	303	42	79	172	273	222	208	154	2636
06B	1.14%	1.73%	3.36%	2.92%	2.71%	2.83%	3.09%	-1.14%	4.23%	-0.17%	-2.22%	0.51%	2.57%	1.93%
Num S.pts	76	70	115	78	109	123	12	42	80	86	51	59	65	966
07B	4.20%	5.58%	1.12%	0.70%	-3.08%	4.64%	6.49%	-1.95%	7.16%	-3.17%	9.57%	3.88%	2.20%	1.97%
Num S.pts	21	20	33	39	52	46	4	13	24	16	5	24	28	325
08B	12.00%	-1.78%	4.68%	0.39%	-1.68%	7.14%	-9.72%	-3.23%	9.74%	4.41%	4.67%	2.70%	2.23%	3.09%
Num S.pts	5	13	24	15	30	33	2	8	15	8	5	5	12	175
09B	-	-	26.52%	40.05%	31.71%	1.76%	-	3.36%	-	-	-	-	-	19.78%

Num S.pts	-	-	1	1	2	1	-	2	-	-	-	-	-	7
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Table 3.6 – Apr 08 to Sep 08: EWCF, with SF=1: 2007/08 ALPs and DAFs ‘Best Estimate 07’

Analysis of daily percentage error: Statistic is total errors as percentage of full period

EUC	SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	ALL
01B	-1.55%	-4.14%	-3.92%	-2.38%	-4.51%	-4.70%	-	-0.86%	-4.74%	-0.78%	-3.45%	-4.19%	-0.35%	-2.91%
Num S.pts	243	232	229	261	239	247	-	252	256	227	236	245	248	2915
02B	5.06%	5.43%	0.65%	3.96%	4.57%	3.87%	15.59%	0.11%	-1.55%	-0.34%	7.33%	2.13%	5.31%	2.95%
Num S.pts	76	102	120	91	107	95	5	76	110	135	109	104	104	1234
03B	2.73%	1.79%	-2.99%	3.82%	2.03%	7.05%	2.49%	2.37%	3.30%	5.52%	4.39%	5.28%	5.57%	3.29%
Num S.pts	94	73	127	83	123	80	14	58	117	146	153	81	79	1228
04B	-1.84%	0.56%	-0.85%	-1.91%	0.35%	1.18%	7.36%	3.08%	-2.49%	4.94%	4.34%	0.58%	-2.14%	0.70%
Num S.pts	298	248	348	249	342	271	42	144	304	366	386	264	218	3480
05B	-0.07%	-0.69%	-4.11%	-4.85%	-3.79%	0.73%	-2.11%	0.28%	3.20%	1.45%	0.25%	1.47%	-1.10%	-0.76%
Num S.pts	258	172	333	188	232	303	42	79	172	273	222	208	154	2636
06B	-2.03%	-3.15%	-5.57%	-5.02%	-4.69%	-4.69%	-5.08%	1.72%	-8.31%	0.50%	3.86%	-0.66%	-4.26%	-3.34%
Num S.pts	76	70	115	78	109	123	12	42	80	86	51	59	65	966
07B	-6.56%	-9.45%	-1.62%	-0.98%	3.97%	-7.19%	-10.87%	3.06%	-13.07%	4.51%	-18.86%	-6.88%	-3.70%	-3.54%
Num S.pts	21	20	33	39	52	46	4	13	24	16	5	24	28	325
08B	-20.45%	2.08%	-6.45%	-0.47%	2.00%	-10.40%	9.85%	4.09%	-16.63%	-6.45%	-6.88%	-3.74%	-3.08%	-4.91%
Num S.pts	5	13	24	15	30	33	2	8	15	8	5	5	12	175
09B	-	-	-74.77%	-379.05%	-122.19%	-2.15%	-	-4.28%	-	-	-	-	-	-101.27%
Num S.pts	-	-	1	1	2	1	-	2	-	-	-	-	-	7

Table 3.7 – Oct 07 to Sep 08: EWCF, with SF=1: 2008/09 ALPs and DAFs ‘Best Estimate 08’

Analysis of daily percentage error: Statistic is total errors as percentage of full period

EUC	SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	ALL
01B	-0.17%	-0.28%	-0.27%	-0.30%	-0.27%	-0.25%	-	-0.27%	-0.24%	-0.27%	-0.25%	-0.16%	-0.20%	-0.24%
Num S.pts	243	232	229	261	239	247	-	252	256	227	236	245	248	2915
02B	-0.30%	-0.43%	-0.34%	-0.48%	-0.41%	-0.37%	-0.34%	-0.39%	-0.43%	-0.36%	-0.37%	-0.22%	-0.36%	-0.37%
Num S.pts	76	102	120	91	107	95	5	76	110	135	109	104	104	1234
03B	-0.37%	-0.49%	-0.25%	-0.50%	-0.38%	-0.37%	-0.25%	-0.38%	-0.29%	-0.25%	-0.34%	-0.10%	-0.24%	-0.32%
Num S.pts	94	73	127	83	123	80	14	58	117	146	153	81	79	1228
04B	-0.32%	-0.52%	-0.25%	-0.38%	-0.38%	-0.28%	-0.25%	-0.40%	-0.38%	-0.34%	-0.32%	-0.18%	-0.35%	-0.33%
Num S.pts	298	248	348	249	342	271	42	144	304	366	386	264	218	3480
05B	-0.31%	-0.41%	-0.28%	-0.40%	-0.37%	-0.36%	-0.28%	-0.35%	-0.35%	-0.29%	-0.30%	-0.19%	-0.36%	-0.32%
Num S.pts	258	172	333	188	232	303	42	79	172	273	222	208	154	2636
06B	-0.34%	-0.41%	-0.29%	-0.35%	-0.37%	-0.34%	-0.29%	-0.35%	-0.36%	-0.30%	-0.28%	-0.22%	-0.33%	-0.33%
Num S.pts	76	70	115	78	109	123	12	42	80	86	51	59	65	966
07B	-0.31%	-0.40%	-0.32%	-0.34%	-0.32%	-0.32%	-0.32%	-0.33%	-0.32%	-0.32%	-0.31%	-0.25%	-0.33%	-0.32%
Num S.pts	21	20	33	39	52	46	4	13	24	16	5	24	28	325
08B	-0.30%	-0.33%	-0.31%	-0.32%	-0.31%	-0.30%	-0.31%	-0.30%	-0.29%	-0.29%	-0.29%	-0.25%	-0.30%	-0.30%

Num S.pts	5	13	24	15	30	33	2	8	15	8	5	5	12	175
09B	-	-	-0.29%	-0.30%	-0.29%	-0.30%	-	-0.30%	-	-	-	-	-	-0.30%
Num S.pts	-	-	1	1	2	1	-	2	-	-	-	-	-	7

Table 3.8 – Oct 07 to Mar 08: EWCF, with SF=1: 2008/09 ALPs and DAFs ‘Best Estimate 08’

Analysis of daily percentage error: Statistic is total errors as percentage of full period

EUC	SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	ALL
01B	0.59%	0.51%	1.12%	0.28%	1.13%	1.21%	-	0.21%	1.02%	0.49%	1.00%	0.88%	-0.08%	0.69%
Num S.pts	243	232	229	261	239	247	-	252	256	227	236	245	248	2915
02B	-1.15%	-1.69%	-0.13%	-2.50%	-2.06%	-1.29%	-7.61%	-0.23%	-0.11%	-0.12%	-2.37%	-0.47%	-0.98%	-1.06%
Num S.pts	76	102	120	91	107	95	5	76	110	135	109	104	104	1234
03B	-1.92%	-0.60%	0.01%	-2.08%	-2.45%	-2.70%	-2.19%	-1.70%	-1.46%	-2.66%	-1.53%	-2.75%	-2.60%	-1.84%
Num S.pts	94	73	127	83	123	80	14	58	117	146	153	81	79	1228
04B	0.77%	-0.49%	-0.71%	-0.36%	-0.70%	-0.26%	-4.82%	-2.44%	0.40%	-2.12%	-2.43%	-0.29%	0.70%	-0.75%
Num S.pts	298	248	348	249	342	271	42	144	304	366	386	264	218	3480
05B	-0.37%	0.32%	1.19%	2.09%	1.36%	-0.30%	0.20%	0.75%	-1.27%	-0.75%	-0.45%	-1.41%	0.56%	0.12%
Num S.pts	258	172	333	188	232	303	42	79	172	273	222	208	154	2636
06B	1.43%	1.91%	2.24%	2.55%	2.26%	1.78%	1.96%	-1.07%	3.70%	-0.69%	-1.76%	0.07%	2.12%	1.48%
Num S.pts	76	70	115	78	109	123	12	42	80	86	51	59	65	966
07B	3.88%	5.93%	1.49%	1.22%	-2.50%	5.13%	6.84%	-1.80%	6.16%	-4.31%	8.61%	4.41%	2.24%	2.15%
Num S.pts	21	20	33	39	52	46	4	13	24	16	5	24	28	325
08B	11.08%	-3.03%	3.49%	-0.49%	-2.55%	6.32%	-11.09%	-4.09%	8.45%	3.03%	3.33%	1.51%	1.15%	2.05%
Num S.pts	5	13	24	15	30	33	2	8	15	8	5	5	12	175
09B	-	-	26.06%	39.66%	31.28%	1.11%	-	2.87%	-	-	-	-	-	19.31%
Num S.pts	-	-	1	1	2	1	-	2	-	-	-	-	-	7

Table 3.9 – Apr 08 to Sep 08: EWCF, with SF=1: 2008/09 ALPs and DAFs ‘Best Estimate 08’

Analysis of daily percentage error: Statistic is total errors as percentage of full period

EUC	SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	ALL
01B	-2.09%	-2.41%	-4.10%	-1.90%	-4.35%	-4.51%	-	-1.57%	-4.04%	-2.46%	-4.02%	-3.31%	-0.57%	-2.89%
Num S.pts	243	232	229	261	239	247	-	252	256	227	236	245	248	2915
02B	1.60%	2.77%	-0.89%	5.48%	4.03%	2.24%	14.28%	-0.82%	-1.29%	-0.94%	4.37%	0.38%	1.33%	1.40%
Num S.pts	76	102	120	91	107	95	5	76	110	135	109	104	104	1234
03B	3.14%	-0.21%	-0.92%	3.69%	5.04%	5.85%	4.45%	2.91%	2.61%	5.38%	2.68%	6.51%	6.06%	3.50%
Num S.pts	94	73	127	83	123	80	14	58	117	146	153	81	79	1228
04B	-2.71%	-0.59%	0.79%	-0.41%	0.43%	-0.34%	8.87%	4.47%	-2.36%	3.63%	4.64%	0.08%	-2.83%	0.60%
Num S.pts	298	248	348	249	342	271	42	144	304	366	386	264	218	3480
05B	-0.21%	-1.88%	-3.17%	-5.74%	-3.77%	-0.46%	-1.19%	-2.46%	1.54%	0.63%	0.02%	2.42%	-2.10%	-1.20%
Num S.pts	258	172	333	188	232	303	42	79	172	273	222	208	154	2636
06B	-3.39%	-4.46%	-4.50%	-5.39%	-4.86%	-3.87%	-4.01%	0.75%	-8.35%	0.39%	2.19%	-0.78%	-4.45%	-3.51%
Num S.pts	76	70	115	78	109	123	12	42	80	86	51	59	65	966
07B	-6.82%	-10.91%	-2.95%	-2.52%	2.49%	-8.77%	-12.32%	1.93%	-12.24%	5.24%	-17.99%	-8.74%	-4.71%	-4.61%

Num S.pts	21	20	33	39	52	46	4	13	24	16	5	24	28	325
08B	-19.67%	2.88%	-5.54%	-0.10%	2.35%	-9.96%	10.62%	4.46%	-15.27%	-5.20%	-5.65%	-2.74%	-2.33%	-4.21%
Num S.pts	5	13	24	15	30	33	2	8	15	8	5	5	12	175
09B	-	-	-74.65%	-378.61%	-122.03%	-2.03%	-	-4.35%	-	-	-	-	-	-101.15%
Num S.pts	-	-	1	1	2	1	-	2	-	-	-	-	-	7

